

# UNIQUE IDENTIFICATION (UID)



## **U.S. Air Force Ammo/Transportation AIT Forum**

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# UID: Acquisition Regulation

- ◆ The contractor shall deliver all items under a contract line, subline, or exhibit line item and determine the data qualifier strategy they will use
- ◆ Specific Requirements
  - ◆ “Item” is defined as a single hardware article or unit formed by a grouping of subassemblies, components or constituent parts
  - ◆ The requiring activity determines the necessity for UID for items with a unit acquisition cost less than \$5,000
  - ◆ The requiring activity determines whether to require a UID for subassemblies, components, and parts embedded within an item regardless of dollar value
  - ◆ Subassemblies, components and parts embedded within an item will be identified in a CDRL or other exhibit (see the Data Item Description for Use in Preparing the DD1423 (CDRL) at [www.acq.osd.mil/uid](http://www.acq.osd.mil/uid))
  - ◆ Requirements for UID and acquisition cost determination will be passed on from prime to subcontractors

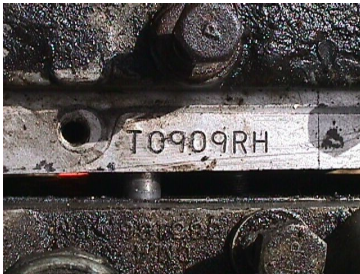


# UID: What Is It?



In today's world, many items we buy have identification on them that indicate the manufacturer or distributor of the product and the product type (e.g., 12oz can of Coca-Cola Classic)

Two identical cans of Coke from the same bottling plant will show the same data on the Universal Product Code (UPC)



Some items also have a serial number that differentiates one item from another identical item (e.g., the 24<sup>th</sup> engine off the assembly line is different from the 1024<sup>th</sup>)

Serial numbers are unique, but not outside of their enterprise – the serial number assigned by XYZ Manufacturer could be the same as one assigned by ABC Company



By combining enterprise identification, item class and serialization, a globally unique item identifier is created that differentiates every item from other items

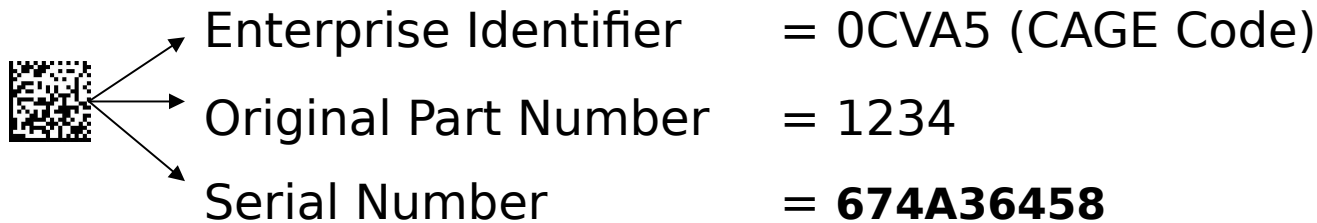
Each item has its own globally unique identifier (UID)



# UID: How is it Constructed?

The UID shall be derived from its discrete component data elements – the UID is not required to be marked on the item as a separate data element

From the Data Matrix:



The UID can be derived using the IAC for CAGE, which is “D”:

UID Construct 1	UID Construct 2
<i>If the Serial Number is Unique within the Enterprise Identifier</i>	<i>If the Serial Number is Not Unique within the Enterprise Identifier but is Unique within the Part Number</i>
<b>D0CVA5674A36458</b>	<b>D0CVA51234674A36458</b>



# UID Policy Overview - Latest Events

- ◆ ISO ADC1 TG2 sent New Item Work Proposal to U.S. TAG for a new format code to ISO/IEC 15434 to allow Text Element Identifiers (TEIs) and forward to SC31
  - **IMPORTANT**: Vote by full US TAG ends MAY 21 on approval to forward to SC31
    - Encouraging US TAG members to vote affirmatively
  - Weekly International telecon with UK, Canada, Australia standards & MoD to assure SC31 approval of work item
- ◆ Air Transport Association (ATA) approved use of ISO 15434 wrapped TEIs which enables defense contractors doing commercial aerospace business to mark a single way!
- ◆ A second interim DFARS rule for capturing the acquisition cost of tangible items and placing UID data on them at acquisition published December 30, 2003 – Final rule in the works
- ◆ Specific guidance related to UID requirements can be found by referring to the following sources:
  - DFARS dated 30 December 30, 2003
  - DoD Guide to Uniquely Identifying Items
  - [www.acq.osd.mil/uid](http://www.acq.osd.mil/uid)



# UID: Database Data Transmission

The contractor is required to transmit, upon shipment notification, UID database data in addition to the data in the Data Matrix symbol and in addition to any data previously required during shipment notification

End Item Database Data (15) includes:

- ◆ **UID (Concatenated)**
- ◆ Descriptive Data
  - UID Data Elements (3)
  - Issuing Agency Code
  - UID Type
  - Item Description
  - Unit of measure
- ◆ Acquisition Data
  - Contractor
  - Contract Number
  - CLIN/SLIN/ELIN
  - Price
  - Acceptance Code (identifies acceptor)
  - Acceptance Date
  - Ship to code

## Embedded Items of End Items (10)

- ◆ UID (Concatenated)
- ◆ Descriptive Data
  - UID Data Elements (3)
  - Issuing Agency Code
  - UID Type
  - Item Description
  - Unit of measure
- ◆ **Parent UID as of delivery date**
- ◆ GFP flag

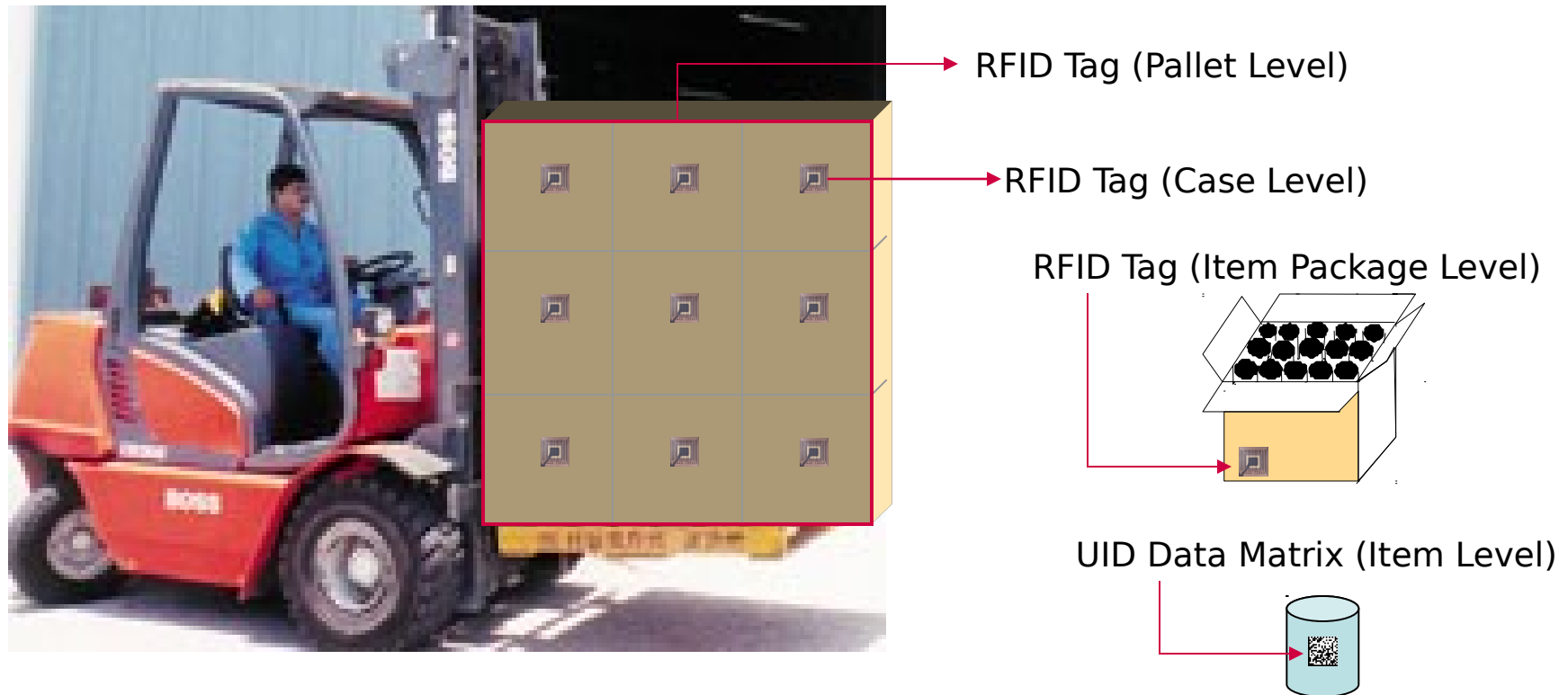


# UID - RFID Relationship



# UID-RFID Policy Relationship

**According to current DoD Policy, RFID tags that carry data are required to be attached to packages at multiple levels, including item packages, cases, and pallets. Unique Identifiers are required to be attached or directly marked on items using a data matrix to carry the UID data elements.**







# UID-RFID Database Data Relationship

## End Item Database Data (15)

- ◆ UID (Concatenated)
- ◆ Descriptive Data
  - UID Data Elements (3)
  - Issuing Agency Code
  - UID Type
  - Item Description
  - Unit of measure
- ◆ Acquisition Data
  - Contractor
  - Contract Number
  - CLIN/SLIN/ELIN
  - Price
  - Acceptance Code (identifies acceptor)
  - Acceptance Date
  - Ship to code

## Embedded Items of End Items (10)

- ◆ UID (Concatenated)
- ◆ Descriptive Data
  - UID Data Elements (5)
  - Item Description
  - Unit of measure
- ◆ Parent UID as of delivery date
- ◆ GFP flag

## RFID Data at the Pallet Level

- ◆ Pallet EPC
- ◆ Shipping Data

## RFID Data at the Case Level

- ◆ Pallet EPC
- ◆ Case EPC

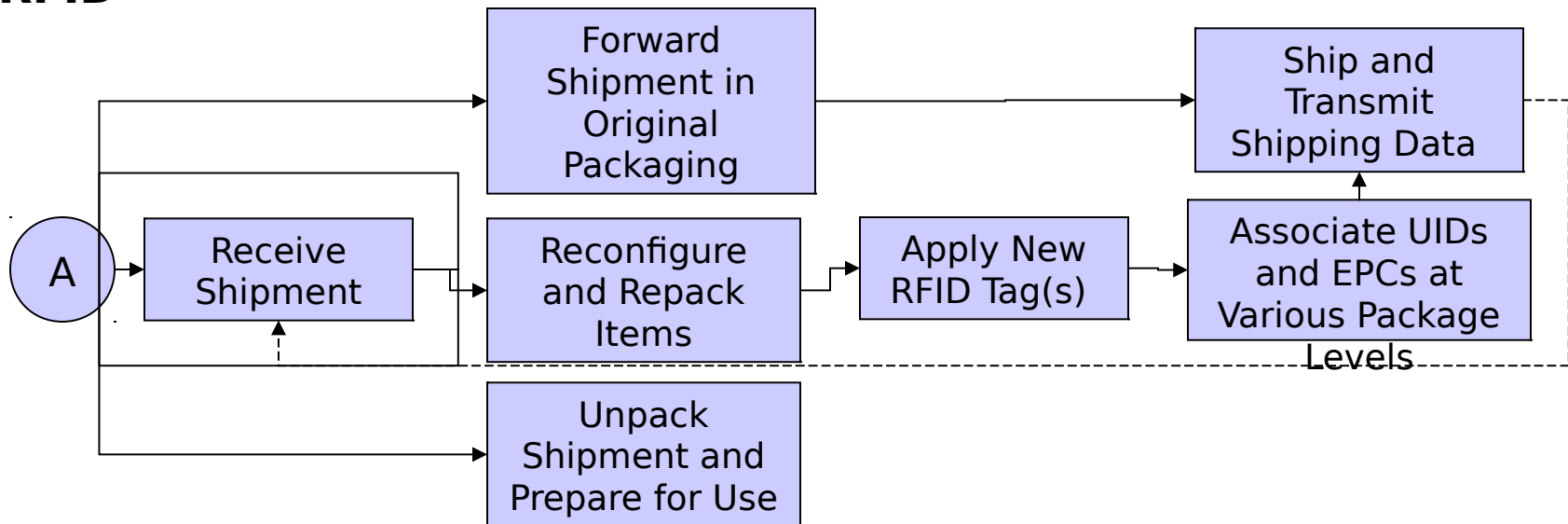
## RFID Data at the Item Package Level

- ◆ Case EPC
- ◆ Item Package EPC



# UID-RFID Process Relationship

## RFID



**Applies to all shipments, except between:**

- ✓ Tier 2 and Tier 1 Suppliers
- ✓ Household Goods Contractors



# Benefits to Industry

- ◆ UID establishes a common key for sharing digital data as well as replacement parts across several enterprises, both suppliers and customers, global and domestic
- ◆ As a result of sharing more data across the supply chain, over time operational efficiency for all supply chain partners will increase (e.g., Lower administrative costs to gather and/or reconcile data)
- ◆ Improvements in the ability to track, value, and control items apply to a prime contractor that purchases items from a subcontractor (*similar to the benefits that DoD will get from its suppliers*)
  - Improved failure analysis within vendor supply chain
  - Improved returns tracking to specific-item level
- ◆ UID creates a necessity for standardized item serialization throughout every organization (if not currently done)
- ◆ More data can be stored in a 2-D Data Matrix than a traditional 1-D Bar Code in the same footprint

# **Rolls-Royce UID Implementation**



# Advice on Getting Started

- ◆ Establish an Implementation Team
- ◆ Become familiar with the DFARS Policy and supporting material.
- ◆ Establish a POC
- ◆ Schedule regular meeting sessions
- ◆ Establish effective communication channels
- ◆ Attend sessions on UID, DPM, WAWF, and RFID
- ◆ Keep the organization informed



# UID Policy Impact on Rolls-Royce

- ◆ DoD 2-D marking specification requirement (as invoked through Mil Std 130L) is a significant change
- ◆ Rolls-Royce and industry cannot afford to implement dual or multiple marking specs IAW ISO 15434 and ATA Spec 2000
- ◆ Rolls-Royce is working with DoD, the Aerospace Industries Association (AIA) and the Air Transport Association (ATA) to agree on a converged standard between the ATA Spec 2000 and ISO 15434 formats
- ◆ Rolls-Royce must revise it's corporate specification by July/Aug to meet the DoD UID policy requirements through out it's supply chain.



# Notice to Suppliers (NTS)

- ◆ Review your component specifications and understand what changes will be required to implement data matrix marking
  - ◆ Vibro peen will NOT be acceptable for FINAL part marking.
- ◆ Review and understand the optimum marking process for your parts
- ◆ Review your options
  - ◆ Sub contract marking?
  - ◆ Alternative marking processes
  - ◆ Drawing alteration.....
- ◆ Develop plans to implement Direct Part Marking NOW
- ◆ Investment 'may' be required
- ◆ Implementation is NOT optional



# Where to Find Additional Info

- ◆ UID Web Site - <http://www.acq.osd.mil/uid/>
- ◆ Mil Std 130L (10 October 2003)
- ◆ DoD Guide to Uniquely Identifying Items
- ◆ Mil Std 129P -  
<http://www.dscc.dla.mil/offices/packaging/specstdslist.html#STDs>  
)
- ◆ WAWF - <https://wawf.eb.mil>
- ◆ WAWF Training web site - [www.wawftraining.com](http://www.wawftraining.com)

START PLANNING NOW and GET INVOLVED



# **Wide Area Work Flow & UID Regis**

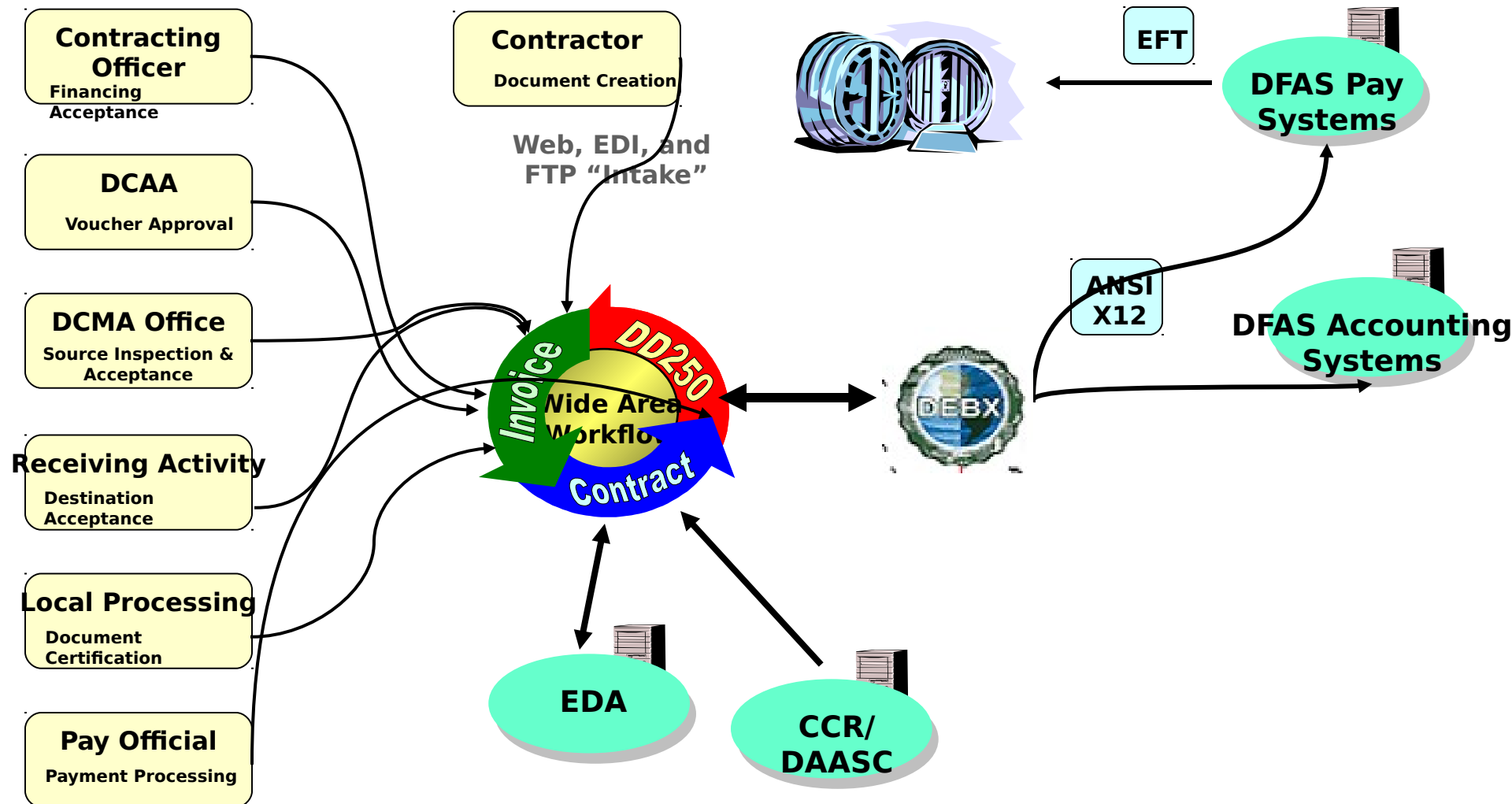


# What is WAWF-RA?

- ◆ Wide Area Work Flow-Receipts and Acceptance (WAWF-RA) is a DoD-wide application designed to eliminate paper from the receipt and acceptance process of the DoD contracting lifecycle.
- ◆ The goal is to enable authorized Defense contractors and DoD personnel to create invoices and receiving reports and access contract related documents electronically.



# Wide Area Workflow v3.0x



*Email notices sent to next workflow user*



# Who Will Benefit?

## Government

- ◆ Electronically record the inspection and acceptance of goods & services
- ◆ 24/7 document access and status check
- ◆ Real-time processing
- ◆ Reduced risk of lost or misplaced documents
- ◆ Reduced re-keying and improved accuracy of data
- ◆ Secure transactions with audit capability
- ◆ Reduce late interest penalties
- ◆ Maximize vendor discounts

## Vendors

- ◆ Submit documents electronically
- ◆ 24/7 document access and status check
- ◆ Immediate feedback when the government rejects a document
- ◆ Ability to correct and resubmit documents online
- ◆ Faster processing time
- ◆ Secure transactions with audit capability
- ◆ No transaction fees



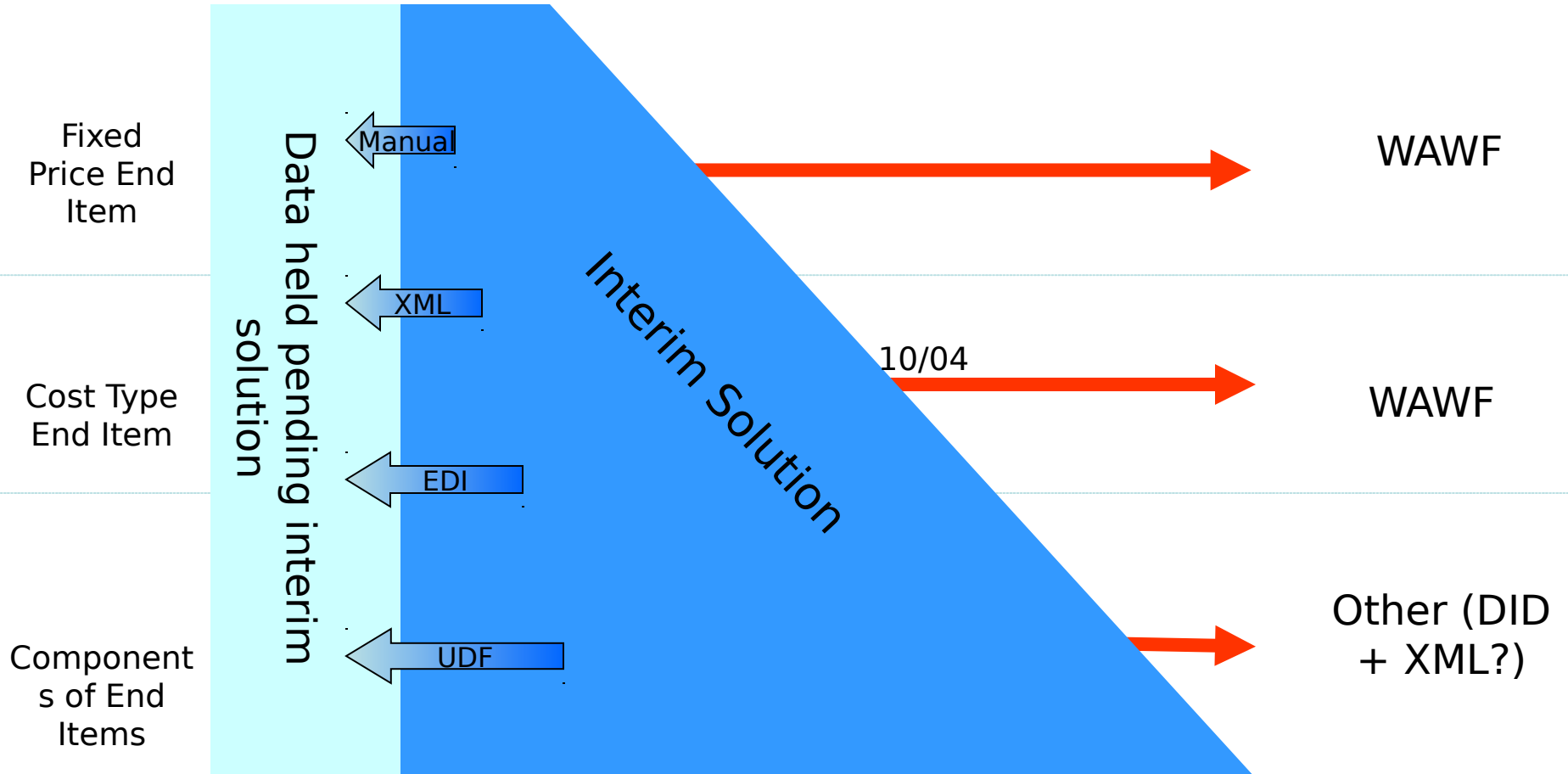
# Interim State - Definition

- ◆ The UID data capture process to be utilized while full system capability is developed, implemented, and adopted.
- ◆ Four options for UID data submission – post acceptance:
  - Web entry
  - XML
  - EDI (based on to-be WAWF format)
  - UDF (based on to-be WAWF format)
- ◆ Interim Solution used when:
  - Cost type contract
  - Vendor or Government Acceptor not yet on WAWF
  - Other future collection scenarios (depots, charge card, etc)



# Interim UID Timeline

Jan '04      May 03 '04      Jul '04      Future      Data Capture



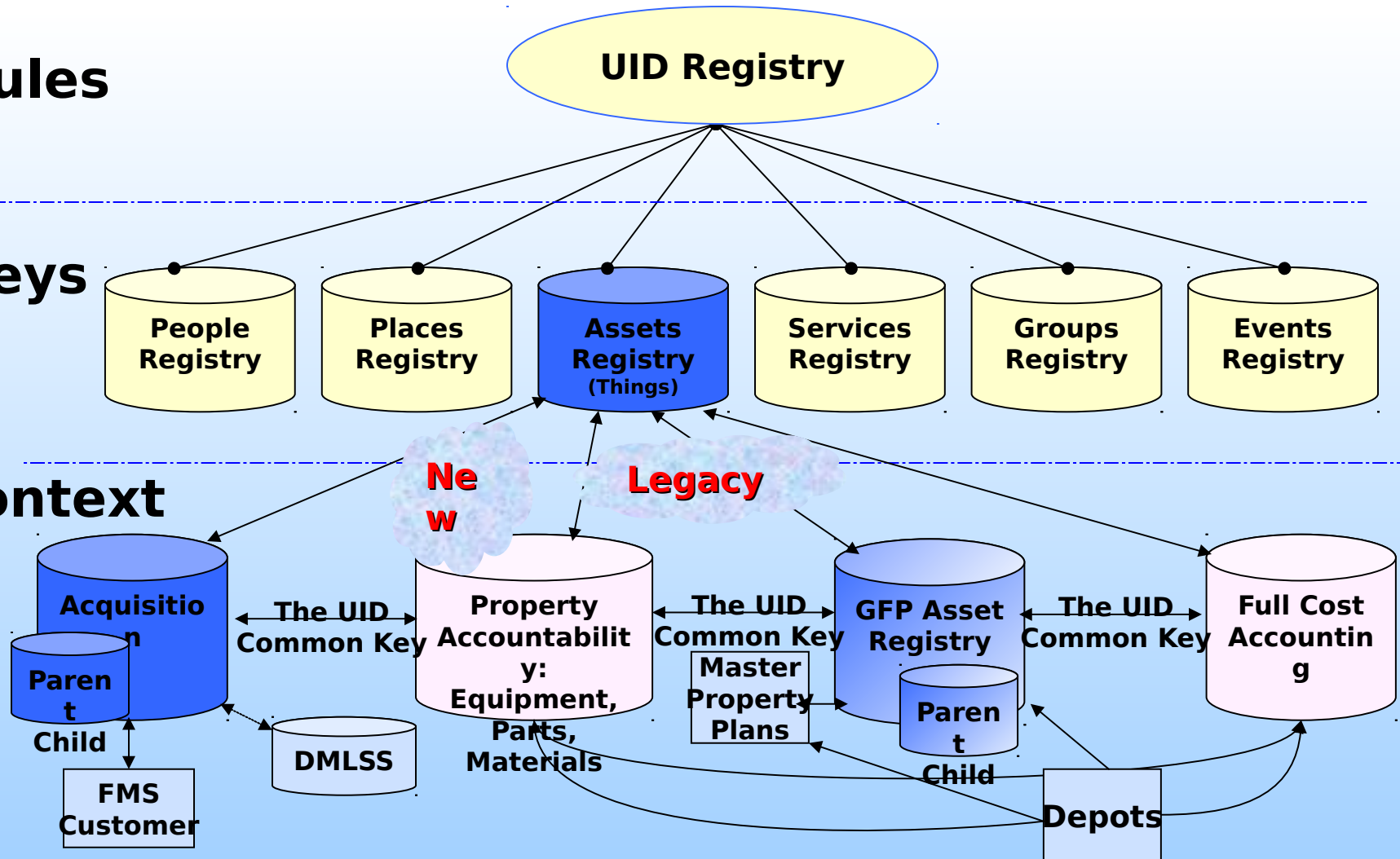


# UID Registry Concept

## Rules

## Keys

## Context





# Government Furnished Property (GFP)

## Registry Concept

- 100% GFP UIDed for Asset Accountability & Valuation
- Track UID Items in Contract or Custody
- GFP Marked with UID by Issuing Source

### GFP Items

- By Company
- By Program

### Contractor GFP Master Plans

#### GFP in Storage

- Assign Alias UID
- Mark with UID when Placed in Use

#### GFP in Use

- Assign Alias UID
- Mark with UID when Item Possession is transferred

#### GFP in GOCO

- As specified in Operating Contract

### GFP Registry of Alias UIDs

- Custodian CAGE
- GFP Item UID
- Date Issued
- Date Received
- Requiring Contract Number
- Parent/Child Relationships

Industry  
Inputs

Government  
Inputs

Property  
Accountability  
Systems

UID  
Registry  
(GFP UIDs  
Flagged)

Maintenance  
Systems

GOCO - Government-Owned Contractor-Operated





# What's Next

- ◆ Registry
  - Identifying requirements for internal and external data sources
  - Identifying parameters for registry access and views
- ◆ WAWF enhancement
  - Cost type contracts
- ◆ Infrastructure support for
  - Embedded items
  - Depot UID submission
  - Error reconciliation
  - Container UID content concept
  - Submission and extraction of UID data in net-centric model

# Frequently Asked Questions



# By the Services

Question	Answer
Does UID apply to existing contracts or Basic Ordering Agreements?	UID is mandatory only to new <b>solicitations</b> on or after January 1, 2004, not contracts in place, however USD(AT&L) policy “strongly encourages Component Acquisition Executives to incorporate UID requirements into ongoing contracts where it makes business sense to do so.”
All contract items delivered under a contract with a unit price of \$5,000 or more will require unique item identification marking or a DoD recognized unique identification equivalent. Are the above contract items to be listed in (c)(1)(ii) along with the embedded subassemblies, components, and parts? If not, where?	Contract items over \$5000 are not required to be listed in an RFP exhibit or CDRL unless the embedded subassemblies, components and parts are required to have a UID. The contractor will be required to list each end item UID and acquisition cost if the acquisition cost is over \$5000 as well as the items that have been specified by the Department in the exhibit or CDRL.
Does the UID apply to a small business with less than 50 employees?	Yes, the UID policy and DFARS clause applies to all DoD suppliers.
Is funding being provided to implement this new requirement?	At the current time there are not additional funds planned for UID.
What if the item is too small to mark?	Bag and tag, in accordance with MIL-STD-129, MIL-STD-130.



# By Industry

Question	Answer
Will waivers or exceptions to UID be granted?	The rule is considered to be a strategic imperative, necessary to efficiently move supplies to warfighters. No waivers or exceptions can be granted.
Will UID apply to classified items?	Yes.
Will UID apply to Foreign Military Sales?	Yes.
Is commercial software considered an item?	For purposes of unique identification and valuation, software, manuals, and other forms of information are not considered to be items. The definition of item is a single hardware article or unit formed by a grouping of subassemblies, components, or constituent parts.
Will the UID replace the NSN?	No.
Do legacy parts need to be marked?	Yes. Policy is being drafted for legacy.